

REMARKS

Claim 1 and 3-18 are pending in this application. By this Amendment, Claims 1, 5 and 7 are amended. Claims 9-18 remain withdrawn from consideration by the Examiner for being directed to non-elected subject matter. Applicants respectfully submit that no new matter is presented herein

Specification

The disclosure is objected to for informalities therein. Applicants have amended the Specification in a manner believed to be responsive to the objection. Applicants respectfully request withdrawal of the objection.

Claim Objections

Claim 8 is objected to for being in improper form for being dependent upon a multiple dependent claim. Applicants have amended the claims in a manner believed to be responsive to the objection. Applicants respectfully request withdrawal of the objection.

Claim Rejections – 35 U.S.C. §112

Claim 7 is rejected under 35 U.S.C. §112, second paragraph. Applicants have amended Claim 7 in a manner believed to be responsive to the rejection. Applicants respectfully request withdrawal of the rejection.

Claim Rejections – 35 U.S.C. §102/§103

Claims 1, 5 and 7-8 are rejected under 35 U.S.C. §102(b) as being anticipated by JP 2002/305006 to Suenaga et al. (Suenaga). Claims 3-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Suenaga in view of U.S. Pre-grant Publication No. 2002/0182471 to Kralick. Claim 6 is rejected under 35 U.S.C. §103(a) as being

unpatentable over Suenaga in view of U.S. Patent No. 6,316,139 to Uchida et al. (Uchida). Applicants respectfully traverse the rejections for the following reasons.

Claim 1 recites a seal-separator conjugation for a fuel cell which clamps a membrane electrode assembly sandwiching a polymer electrode membrane, including seals on a front surface and a rear surface of the separator, wherein the seals are located at least at one end of the separator, wherein each seal is fitted to a corresponding neighboring seal formed on a neighboring separator or a neighboring membrane electrode assembly, wherein the seal on the separator is a protrusion having a trapezoid cross-section and the neighboring seal on the neighboring separator is a recess having a shape corresponding to the protrusion, a top part of the protrusion being brought into contact with the recess when the fuel cell is assembled.

In applying Suenaga, the Office Action asserts Suenaga discloses seals contained on the separators that fit into seals on other separators of other fuel cells.

Applicants respectfully disagree with the assertion made by the Office Action as it is contrary to that which is clearly taught by Suenaga.

Applicants respectfully submit that it appears as if the Office Action confuses the picture frame-shaped member 101 and the sealing material 51 or 53 in Suenaga. The sealing material 51 or 53 and the picture frame-shaped member 101 are different in function and configuration. In general, a purpose of using the sealing material 51 or 53 in a fuel cell is to seal fluid passages. The sealing material 51 or 53 is provided in the fuel cell in such a manner that the sealing material 51 or 53 is fixed and not movable relative to a separator, or as in the present application, the sealing material is fixed and not movable relative to another sealing material. In Suenaga, a purpose of introducing

the picture frame-shaped member 101 having a fitting shape similar to the seal of the present application, e.g. the picture frame-shaped member in FIGs. 5, 6, 7, 12 and 13, is to prevent foreign substance from entering from outside (column 9, lines 28-29), by slidably changing the vertical arrangement in accordance with the change in distance between two adjacent separators (column 3, lines 4 – 9). The picture frame-shaped member 101 has a vertical face relative to the surface of the separator and the vertical face is brought into slidable contact with a vertical face of an adjacent picture frame-shaped member, and by sliding the vertical faces over each other, the gap between the separators is kept sealed. In fact, each of FIGs. 5, 6, 7, 12 and 13 shows a state in which faces of the picture frame-shaped members (e.g., 101) parallel to the surface of the separator are apart from each other, i.e., a stack of the picture frame-shaped members is elongated in a vertical direction.

Also, as plainly shown in Drawings (Figures) 3-17 of Suenaga, Applicants note the seal (53) on one surface of a separator (3) does not contact let alone be fitted to a neighboring seal on a neighboring separator. Rather, each seal (53) directly contacts the neighboring separator (3) instead of another seal. With respect to the modification illustrated in Drawings (Figures) 18-19 of Suenaga, Applicants note the seals are not only provided on the front and rear surfaces of the separator as the seals (51-53) totally encompass the separators as well as the body section (261a) of the frame (261), thereby leading to a wider or fatter structure due to the additional seal material located between the separators (3).

Moreover, Applicants respectfully submit that Suenaga does not disclose or suggest the specific structural configuration recited by Claim 1, such as, for example, the trapezoid shape, of the sealing materials. Accordingly, Suenaga also does not disclose or suggest the neighboring seal being a recess that is shaped to correspond to the neighboring seal, e.g., trapezoidal, wherein a top part of the trapezoidal seal contact the recess seal when the fuel cell is assembled.

The structural configuration of the claimed invention ensures the fitting of two adjacent seals even when there is a deviation in the alignment of the components during assembly of the fuel cell, and thus the sealing property of the assembled fuel cell is improved.

On the other hand, Suenaga does not disclose or suggest the structural configuration of the claimed invention and also does not function like, derive the benefits of, and the effect of the claimed invention.

As such, based on the above discussed differences, Applicants respectfully submit that Suenaga does not disclose or suggest each and every feature recited by Claim 1.

To qualify as prior art under 35 U.S.C. §102, a prior art reference must disclose each and every feature recited by a rejected claim. As noted above, Suenaga does not disclose or suggest each and every feature recited by Claim 1.

Accordingly, Applicants respectfully submit the Claim 1 is not anticipated by or rendered obvious in view of Suenaga.

Therefore, Applicants respectfully submit that Claim 1 should be deemed allowable over Suenaga.

Kralick is applied for teaching using different gasket materials. Kralick does not overcome or otherwise address the above-noted deficiency of Suenaga.

Uchida is applied for teaching the use of an adhesive layer to attach a gasket to a separator. Uchida does not overcome or otherwise address the above-noted deficiency of Suenaga.

To establish *prima facie* obviousness, the applied art of record must teach or suggest each and every feature of a rejected claim. See M.P.E.P. §2143.03.

As noted above, Suenaga, Kralick and Uchida, alone or in any combination thereof, fail to teach or suggest each and every feature of Claim 1. Therefore, Applicants respectfully submit the Claim 1 is not rendered obvious by any one or combination of Suenaga, Kralick and Uchida, and should be deemed allowable.

Claims 3-8 depend from Claim 1.

It is respectfully submitted that these dependent claims be deemed allowable for at least the same reasons Claim 1 is allowable as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of the rejections.

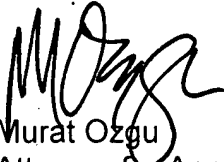
Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding objections and rejections, allowance of Claims 1 and 3-8, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 106145.00074.**

Respectfully submitted,
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